

Homework 2: Differences in Cloud Vendors

ECE-530: Principles of Cloud Computing

Instructors:

Ioannis Papapanagiotou (ipapapa@unm.edu)

Introduction

The purpose of this homework is to understand common IaaS/PaaS platforms and the services they are offering. This will assist the student to map the proper technology based on the business requirements. As outcomes, the student will need to craft the homework as a report to a business and must be able to understand and describe which (a) service and (b) from which vendor is the best for which business case.

Resources

In the references [1,2 and 3], and the related references in this article, you may find a comparison of cloud vendor services. However, those references may lack of completeness with the state of the art services offered by a variety of cloud vendors. [3] indicates a complete report that was produced in Spring 2017 offering of this course and ended up being a published article. This report indicates a great homework (in terms of structure – Abstract, Intro, services, Conclusion, references – and other grading criteria). Your goal is to minimally capture a similar comparison and potentially extend it.

Select **ten** cloud services and compare them in detail. Those cloud services can be mentioned [3] or even better capture services not mentioned in this article. Extra credit (+10) will be provided if you create a report that extends [3]. Research, find and describe similarities, differences and performance benchmarks. Create tables similar to the links but across multiple vendors i.e. AWS, VMware, IBM SoftLayer, Microsoft Azure, Google Cloud etc. You may group the services in similar way to [3].

Deliverables

You may team up with 1-3 people. It is preferable to be at the same group as homework 1. Each group will submit one essay only by a selected team member. The report is open-ended and therefore will be graded in comparison with other reports, in comparison with [3], and curving will be used. If a report is exceptional or goes beyond the instructor expectations it will be given extra 10 points.

Q&A

The instructor has covered most of the topics in the video lectures and some discussions around this subject may happen during office hours. During that time you are free to ask any questions. For further questions, the first level of contact will be the TA. The second level of contact will be the instructor. To get better assistance it is highly recommended that you attend the office hours instead of exchanging emails.

Grading

- Quality of comparison (30)
- Structure of the report (Title, Authors, Abstract, Introduction, Background Work, Services Conclusion, References) (30)
- Completeness of Research (40)
- Services not mentioned in [3] (+10)
- Novel categorization (not in the way done in [3]) (+5)
- Write and deliver the report in PDF produced by Latex (+5)*

Overall grade: 100

Extra credits: 20

*Latex is a document preparation and it is an optional credit. You can find [more information](#) and you can download the package. It is not a requirement.

References

[1]

<https://www.infoworld.com/article/3237566/cloud-computing/cloud-pricing-comparison-aws-vs-azure-vs-google-vs-ibm.html>

[2]

<https://www.datamation.com/cloud-computing/aws-vs-azure-vs-google-cloud-comparison.html>

[3]

<https://arxiv.org/abs/1710.01476>